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EXAMINER	
BLACKMAN, ANTHONY J	
ART UNIT	**PAPER NUMBER**
2676	15

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/423,415	MORIOKA, SEISUKE
	Examiner	Art Unit
	ANTHONY J BLACKMAN	2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20 and 22-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20 and 22-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 11-20 and 22-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over VAN HOOK et al, US Patent No. 6,166,748 in view of DYE et al, US Patent Application Publication, Pub No. 20020158865.

As per claim 14, examiner interprets VAN HOOK et al to suggest an apparatus for image processing (figures 2-5a), comprising: transmission of texture data between [said] texture buffer electrically coupled to said processor is faster than transmission of texture data between said storage device and said processor (it is inherent that processing within figure 5 elements; chip 200 including processor 400 and 502 texture memory via 500 is faster than transmission between figure 5, element 300 RDRAM MEMORY at least because RDRAM MEMORY 300 travels via processor 200 and 106, column 6, lines 58-67), however, *does not explicitly teach* a processor including a data decompression circuit; and a first storage device having texture data and electronically coupled to said processor,

nor having decompressed texture data and electrically coupled to said processor because processor 400 discloses decompression without expressly teaching the type of decompression,

but,

examiner interprets DYE et al to suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" page 26, section 0554 in its entirety, for the following features (it is inherent that processing within figure 5 elements; chip 200 including processor 400 and 502 texture memory via 500 is faster than transmission between figure 5, element 300 RDRAM MEMORY at least because RDRAM MEMORY 300 travels via processor 200 and 106, column 6, lines 58-67).

It would have been obvious to one skilled in the art at the time of the invention to utilize the video/graphics controller (IMC) which includes a novel spanning based method for rendering and display of 3d graphical data on a display device (Abstract, lines 1-3), including "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" of DYE et al to modify the video game system including limited texture compression and decompression management of VAN HOOK et al because both inventions at least share similar technological environments related to rendering and display of 3d graphical data on a display device.

3. As per claim 15, examiner interprets VAN HOOK et al disclose an apparatus for image processing (figures 2-5a), comprising; a first data bus (figure

5, element 502 couples processor 400 via processor 500 and column 30, line 50-column 31, lines 4 and 49-column 32, line 62- provides the means of the first bus) and a second data bus (figure 5, element 106), wherein said first data bus carries texture data between said texture buffer and said processor faster than said second data bus carries texture data from said storage device and said processor (it is inherent that processing within figure 5 elements; chip 200 including processor 400 and 502 texture memory via 500 is faster than transmission between figure 5, element 300 RDRAM MEMORY at least because RDRAM MEMORY 300 travels via processor 200 and 106, column 6, lines 58-67), <u>however,</u>

does not explicitly teach a processor including a data decompression circuit; a first storage device having texture data and electronically coupled to said processor; a texture buffer having decompressed texture data and electrically coupled to said processor, having the decompressed texture data and electrically coupled to said processor because processor 400 discloses decompression without expressly teaching the type of decompression,

but,

examiner interprets DYE et al to suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; including a processor including a data decompression circuit; a first storage device having texture data and

electronically coupled to said processor; a texture buffer having decompressed texture data and electrically coupled to said processor.

4. As per claim 23, VAN HOOK et al disclose an image processing method (figure 5, column 30, lines 50-60) comprising the steps of: storing [said] decompressed texture data between said texture buffer and said processor faster than transferring data between said storage device and said processor (it is inherent that processing within figure 5 elements; chip 200 including processor 400 and 502 texture memory via 500 is faster than transmission between figure 5, element 300 RDRAM MEMORY at least because RDRAM MEMORY 300 travels via processor 200 and 106, column 6, lines 58-67),

however,

does not explicitly teach providing compressed texture data in a storage device; reading said compressed texture data from said storage device and decompressing said compressed texture data in a texture buffer; and storing said decompressed texture data in texture buffer.

Examiner interprets DYE et al to suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; providing compressed texture data in a storage device; reading said compressed texture data from said storage device and decompressing said compressed texture data in a texture buffer; and storing said decompressed texture data in texture buffer.

It would have been obvious to one skilled in the art at the time of the invention to utilize the video/graphics controller (IMC) which includes a novel spanning based method for rendering and display of 3d graphical data on a display device (Abstract, lines 1-3), including "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" of DYE et al to modify the video game system including limited texture compression and decompression management of VAN HOOK et al because both inventions at least share similar technological environments related to rendering and display of 3d graphical data on a display device.

5. As per claim 11, VAN HOOK et al as modified meet limitations for claim 14, in addition to the following limitation; further comprising a frame buffer, wherein said processor stores image data in said frame buffer (column 7, line 44-column 8, line 22).

6. As per claim 12. VAN HOOK et al as modified meet limitations for claim 14, however, VAN HOOK et al does not explicitly teach the limitation of claim 12. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor reads decompressed texture data contained in said texture buffer and performs image processing of said decompressed texture data for conversion to image data.

7. As per claim 13, VAN HOOK et al as modified meet limitations for claim 14, however, VAN HOOK et al does not explicitly teach the limitation of claim 12.

DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor reads compressed texture data from said first storage device, said data decompression circuit decompresses said read compressed texture data, and said processor stores said decompressed texture data in said texture buffer.

8. As per claim 16, VAN HOOK et al as modified meet limitations for claim 14, however, VAN HOOK et al does not explicitly teach the limitation of claim 12. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor includes a FIFO storage device which temporarily stores said read compressed texture data.

9. As per claim 17, VAN HOOK et al as modified meet limitations for claim 16, however, VAN HOOK et al does not explicitly teach the limitation of claim 17. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said data decompression circuit receives said compressed texture data from said FIFO storage device.

10. As per claim 18. ; wherein said processor includes a palette transformation circuit (figure 9, element 904) transformation circuit performing

palette transformation of said decompressed texture data (column 10, lines 8-34).

11. As per claim 19. VAN HOOK et al as modified meet limitations for claim 13, however, VAN HOOK et al does not explicitly teach the limitation of claim 19. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor includes a mip map generation circuit, said mip map generation circuit generating a mip map of said decompressed texture data.

12. As per claim 20, VAN HOOK et al as modified meet limitations for claim 14, however, VAN HOOK et al does not explicitly teach the limitation of claim 20. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said texture data in said first storage device is compressed.

13. As per claim 22, VAN HOOK et al as modified meet limitations for claim 23, however, VAN HOOK et al does not explicitly teach the limitation of claim 22. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; further comprising the step of converting said decompressed texture data to image data, and storing said image data in a frame buffer

14. As per claim 24, VAN HOOK et al as modified meet limitations for claim 23, however, VAN HOOK et al does not explicitly teach the limitation of claim 24. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; further comprising the step of performing palette conversion of said processor faster than said transferring data between said storage device and said processor.

15. As per claim 25, VAN HOOK et al as modified meet limitations for claim 23, however, VAN HOOK et al does not explicitly teach the limitation of claim 25. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; further comprising the step of generating a mip map of said compressed texture data prior to said step of storing said decompressed texture data.

16. As per claim 26. VAN HOOK et al as modified meet limitations for claim 23, however, VAN HOOK et al does not explicitly teach the limitation of claim 26. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; further comprising the step of generating a mip map of said compressed texture data prior to said step of storing said decompressed texture data wherein said

step of storing said decompressed data includes the step of updating said decompressed texture data in said texture buffer with new decompressed texture

17. As per claim 27, VAN HOOK et al as modified meet limitations for claim 23, however, VAN HOOK et al does not explicitly teach the limitation of claim 26. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; further comprising a frame buffer, wherein said processor stores image data in said frame buffer.

18. As per claim 28, VAN HOOK et al as modified meet limitations for claim 15, however, VAN HOOK et al does not explicitly teach the limitation of claim 28. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor reads decompressed texture data contained in said buffer and performs image processing of said decompressed texture data for conversion to image data

19. As per claim 29, VAN HOOK et al as modified meet limitations for claim 15, however, VAN HOOK et al does not explicitly teach the limitation of claim 2. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor reads compressed texture data from said first storage

device, said data decompression circuit decompresses said read compressed texture data, and said processor stores said decompressed texture data in said texture buffer.

20. As per claim 30, VAN HOOK et al as modified meet limitations for claim 29, however, VAN HOOK et al does not explicitly teach the limitation of claim 30. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor includes a FIFO storage device which temporarily stores said read compressed texture data.

21. As per claim 31, VAN HOOK et al as modified meet limitations for claim 30, however, VAN HOOK et al does not explicitly teach the limitation of claim 31. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said data decompression circuit receives said read compressed texture data from said FIFO storage device.

22. As per claim 32. VAN HOOK et al as modified meet limitations for claim 30, however, VAN HOOK et al does not explicitly teach the limitation of claim 32. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations;

wherein said processor includes a palette transformation circuit transformation circuit performing palette transformation of said decompressed texture data.

23. As per claim 33, VAN HOOK et al as modified meet limitations for claim 29, however, VAN HOOK et al does not explicitly teach the limitation of claim 33. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said processor includes a mip map generation circuit, said mip map generation circuit generating a mip map of said decompressed texture data.

24. As per claim 34, VAN HOOK et al as modified meet limitations for claim 29, however, VAN HOOK et al does not explicitly teach the limitation of claim 33. DYE et al suggest that "[t]he preferred method for organization and management of textures as source data is to use lossy data compression and decompression" (page 26, section 0554 in its entirety), reads upon the following claim limitations; wherein said texture data in said first storage device is compressed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J BLACKMAN whose telephone number is 703-305-0833. The examiner can normally be reached on FLEX SCHEDULE.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 703-308-6829.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5731 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ANTHONY J BLACKMAN
Examiner
Art Unit 2676

***
September 24, 2003

Matthew C. Bella

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